

REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 1, 5, and 20 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-20 are pending and under consideration. Reconsideration is requested.

ENTRY OF AMENDMENT UNDER 37 C.F.R. § 1.116:

Applicants request entry of this Rule 116 Response because it is believed that the amendment of claim 1 puts this application into condition for allowance as suggested by the Examiner; the amendments of claim 1 should not entail any further search by the Examiner since no new features are being added and no new issues are being raised; and the amendments do not significantly alter the scope of the claims and place the application at least into a better form for purposes of appeal. No new features or new issues are being raised.

The Manual of Patent Examining Procedures sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

OBJECTIONS TO THE DRAWINGS:

In the Office Action, at page 2, the drawings were objected to. Replacement figures are attached hereto. It is respectfully requested that the objections to the drawings be withdrawn.

REJECTION UNDER 35 U.S.C. § 112:

In the Office Action, at page 3, claims 1-10 and 19 were rejected under 35 U.S.C. § 112, second paragraph, for the reasons set forth therein. Independent claim 1 has been amended to further clarify the claimed features. Accordingly, it is respectfully requested that the rejection to the claims be withdrawn.

REJECTION UNDER 35 U.S.C. § 102:

In the Office Action, at page 9, claims 5-18 and 20 were rejected under 35 U.S.C. § 102 in view of U.S. Patent No. 5,638,112 to Bestler et al. ("Bestler"). This rejection is traversed and reconsideration is requested.

According to the Office Action, Bestler describes "a synchronous separation unit to separate the analog broadcasting signal into a synchronous signal, an analog video signal, and an analog audio signal," as recited in independent claim 11. In particular, the Office Action refers to column 3, lines 10-15 as describing such claimed features. However, Applicants respectfully disagree. The referred portion of Bestler provides that to reduce costs, audio encoder 52 may alternatively comprise a summer for **combining** the L and R audio signals from the D/A converter 42 to provide a monaural audio signal L+R for application to the switch and volume control 54. The other input of the circuit 54 is supplied with the analog MTS composite audio signal from the demodulator 28. See column 3, lines 10-15 of Bestler. There is no teaching or suggestion in Bestler of **separating** "an analog broadcasting signal into a synchronous signal, an analog video signal, and an analog audio signal," as recited in independent claim 11. The features of the audio encoder 52 and the demodulator 28 provided in Bestler are opposite to the features of the synchronous separation unit. There is no teaching or suggestion in the entire cited reference of separating a signal into a synchronous signal, an analog video signal, and an analog audio signal.

Rather than providing evidence from the cited reference as to describing the claimed features of the present invention, on page 6 of the Office Action, the following is stated, "since the extracted composite video signal inherently includes numerous synchronous signals, such as the horizontal and vertical sync signals." However, it has been held that "when an examiner relies on inherency, it is incumbent on the examiner to point to the 'page and line' of the prior art which justifies an inherency theory." Ex parte Schricker, 56 USPQ2d 1723 (BdPatApp&Int 2000). Applicants assert that nothing in Bestler justifies such inherency.

An output of mixer 64 (which comprises the output of digital mixer 60 and IC 38) therefore comprises a **digital video YUV component signal** representing a programmable mixture of the output of MPEG decoder 40 and the output of OSD generator 66, **which mixture may be varied in a complementary relationship under the control of microprocessor 18**. Emphasis added. See column 3, lines 32-47 of Bestler. Further, an NTSC composite video encoder 80 receives a YUV component and generates a corresponding NTSC format analog composite video baseband output signal. See column 4, lines 13-20 of Bestler. However,

nothing in Bestler teaches or suggests that the mixer 64 and/or the encoder 80 “encode a video signal from the digital broadcasting signal and the additional information **according to the separated synchronous signal**,” emphasis added, as recited in independent claim 11. As previously set forth, Bestler is silent as to generating a synchronous signal. Thus, it is not possible for the cited reference to encode the digital video YUV component signal and additional information according to the separated synchronous signal, when the reference fails to teach or suggest separating a synchronous signal.

Accordingly, it is respectfully asserted that Bestler fails to teach or suggest all the claimed features of independent claim 11 and related dependent claims.

Independent claim 5 recites, “a synchronous separation unit to extract a synchronous signal from the analog broadcasting signal received from said air tuner.” Because independent claim 5 includes similar claim features as those recited in independent claim 11, although of different scope, the arguments presented above supporting the patentability of independent 11 are incorporated herein to support the patentability of independent claim 5.

Furthermore, Bestler provides an OSD generator 66 supplying a second digital YUV component to a second multiplier 68 of a digital mixer 60, where it is multiplied by the value $(1 - K_d)$. See column 3, lines 40-44 of Bestler. The output mixer includes a digital video YUV component signal representing a programmable mixture of the output of the MPEG decoder 40 (i.e., a digital YUV component multiplied by K_d) and the output of the OSD generator 66 (i.e., the second digital YUV component multiplied by $(1 - K_d)$). However, contrary to the assertions made in the Office Action, Bestler fails to teach or suggest that the programmable mixture of the output of the MPEG decoder 40 and the output of the OSD generator 66 are encoded “into an encoded analog video signal according to a second control signal of the plurality of control signals and the synchronous signal,” as recited in independent claim 5, where the synchronous signal is extracted from the analog broadcasting signal received from the air tuner. Accordingly, it is respectfully requested that independent claim 5 and related dependent claims be allowed.

Referring to independent claim 18, the Office Action refers to abstract and columns 1, 2, and 4 of Bestler as providing “a tuning unit to selectively receive the digital or analog broadcasting signal; and a processing unit to process the digital or analog broadcasting signal in accordance with the selection by said tuning unit.” However, the Office Action did not address the claim features and arguments provided in the previous response on March 26, 2003, supporting the patentability of, “a processing unit . . . to **synchronize phases** of the digital and analog broadcasting signals upon the tuning unit changing selection between the digital or

analog broadcasting signal,” as recited in independent claim 18.

It is the Applicants’ position that Bestler describes an output of an IC 38, i.e., a digital YUV component output of mixer 64, is applied to one input of a display map normalizer 70. See column 3, lines 61-67 of Bestler. The composite video signal from the analog demodulator 28 is converted to corresponding analog YUV component form by a composite video decoder 72. The digital YUV output of display map normalizer 70 (representing the television signal received either over the analog or digital processing path or a mixture of both) is applied to a D/A converter 76 of a third IC 78. See column 4, lines 13-24 of Bestler. The analog YUV component output of converter 76 is applied to an NTSC composite video encoder 80 of the third IC 78, which generates a corresponding NTSC format analog composite video baseband output signal. This signal is applied to one input of a linear mixer 82 of the third IC 78, which receives at a second input the analog composite video signal from demodulator 28. However, nothing in Bestler teaches or suggests “**synchronize phases of the digital and analog broadcasting signals upon the tuning unit changing selection** between the digital or analog broadcasting signal,” emphasis added, as recited in independent claim 18. Bestler is silent as to recognizing that upon the tuning unit changing selection between the digital or analog broadcasting signal, the phases of the signals are synchronized. Applicants fail to appreciate how a person of ordinary skill in the art would arrive to the presently claimed invention based on the description provided in Bestler as the reference fails to teach or suggest the selection of receiving a digital or analog broadcasting signal and the synchronization of phases of the signals. In view of the foregoing, Applicants respectfully request that independent claim 18 and related dependent claim 19 be allowed.

Independent claim 20 recites, “a processing unit to process the digital or analog broadcasting signal in accordance with the selection by said tuning unit and to synchronize phases of the digital and analog broadcasting signals upon the tuning unit changing selection between the digital or analog broadcasting signal.” Because the claimed features recited in independent claim 20 recite similar features as recited in independent claim 18, although of different scope, the arguments presented above supporting the patentability of independent 18 are incorporated herein to support the patentability of independent claim 20.

In view of the foregoing, it is respectfully requested that independent claims 5, 11, 18, and 20 and related dependent claims be allowed.

REJECTION UNDER 35 U.S.C. § 103:

In the Office Action, at page 9, claim 6 was rejected under 35 U.S.C. § 103 in view of

Bestler and U.S. Patent No. 4,555,723 to Pritchard ("Pritchard"). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Because dependent claim 6 depends from independent claim 5, Bestler and Pritchard, individually or combined, must teach all the claimed features of independent claim 5. The arguments presented above supporting the patentability of independent claim 5 in view of Bestler are incorporated herein. Pritchard generally describes frame comb filters effectively separate the chrominance and luminance components of composite video signal but produce undesirable image distortion when interframe motion occurs. See column 1, lines 29-32 of Pritchard. Luminance cross components introduced into the comb filtered chrominance signal component during interframe motion intervals contribute to the image distortion, which produces phantom images of the moving object. See column 2, lines 48-68 of Pritchard. The luminance cross components are eliminated from the comb filtered chrominance signal by successively filtering the chrominance signal with a chrominance bandpass filter and an interline chrominance comb filter.

Similarly to Bestler, Pritchard fails to teach or suggest, "a synchronous separation unit to extract a synchronous signal from the analog broadcasting signal received from said air tuner," as recited in independent claim 5. Nothing in Pritchard teaches or suggests extracting a synchronous signal. Rather, a chrominance signal of an NTSC composite video signal is synchronized to have a 180-degree phase relationship from frame-to-frame permitting comb filtering on a frame basis. See column 2, lines 10-14 of Pritchard.

Further, as previously set forth, Bestler fails to teach or suggest that the programmable mixture of the output of the MPEG decoder 40 and the output of the OSD generator 66 are encoded "into an encoded analog video signal according to a second control signal of the plurality of control signals and the synchronous signal," as recited in independent claim 5, where the synchronous signal is extracted from the analog broadcasting signal received from the air tuner. Pritchard is also silent as to providing the claimed features of the video encoder unit recited in independent claim 5. Rather, Pritchard limits its description to eliminating luminance cross components from a comb filtered chrominance signal. See abstract. Thus, even assuming, arguendo, that both Bestler and Pritchard were combined, the combination would fail to teach or suggest all the claimed features of independent claim 5. The combination of both cited references is silent as to teaching or suggesting all the claimed features of the synchronous separation unit of independent claim 5.

Accordingly, it is respectfully requested that independent claim 5 and related dependent claim 6 be allowed.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. At a minimum, this Amendment should be entered at least for purposes of Appeal as it either clarifies and/or narrows the issues for consideration by the Board.


If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: 
Alicia M. Choi
Registration No. 46,621

1201 New York Ave, N.W., Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501